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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,862	03/30/2004	John P. Vache	S1446.70005US01	3458

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EXAMINER

SMITH, RICHARD A

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,862

Applicant(s)

VACHE ET AL.

Examiner

R. Alexander Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 37-74 is/are rejected.
- 7) ☒ Claim(s) 23-36 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20050118</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 15, 16, 19, 20, 23-36, 52, 58-64 and 69-74 are objected to because of the following informalities:

Claims 15, 16, 19, 20, 23-36, 52, 58-64 and 69-74 are objected to because while applicant may be his or her own lexicographer, a term may not be given a meaning repugnant to the usual meaning of that term.

The term "fuse" is used throughout the specification, including the abstract and the claims, by the applicant to mean essentially a structure or shell, in particular it appears to be a tubularly shaped structure or shell, while the accepted meaning as a noun is a safety device that protects an electric circuit from excessive current, consisting of or containing a metal element that melts when current exceeds a specific amperage, thereby opening the circuit. Other definitions dependent on whether used as a verb or adjective are:

2. To liquefy or reduce to a plastic state by heating; melt.
3. To mix (constituent elements) together by or as if by melting; blend.
4. To become liquefied from heat.
5. To become mixed or united by or as if by melting together.

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Claim 71 is objected to since:

- (a) "at least one" in line 1 should start with --said--, and
- (b) "its" in line 3 is unclear as to its antecedent.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationship is that there is no limitation disclosing that the deformable element has any effect on the glass fuse changing its physical form.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6-11, 15, 16, 18, 21 and the methods of 37-43, 46-52, 57-59 and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,022,149 to Berger.

Berger discloses an apparatus with the limitations of the above claims when the at least one first element adapted to change its physical form is the fluid 14's volume change, the at least

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one second element is 12 with the weakened spot 18 and absorbent 16, the predetermined temperature at the predetermined amount of time and the item type, e.g. food, medicine, and beverage, etc., is as discussed in column 1, lines 11-31 and in the transparent bottle cap of figure 6, the at least one second element includes at least one colored element is the absorbent 16 upon exposure to fluid 14, the container and package is as shown in figure 4.

With respect to the breakable fuse: fuse is defined as:

1. To liquefy or reduce to a plastic state by heating; melt;
2. To mix (constituent elements) together by or as if by melting; blend.
3. To become liquefied from heat.
4. To become mixed or united by or as if by melting together: or
5. A safety device that protects an electric circuit from excessive current, consisting of or containing a metal element that melts when current exceeds a specific amperage, thereby opening the circuit.

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In this case, Berger meets the definition since it mixes, melts or blends.

6. Claims 1, 2, 4, 5, 8, 15, 16, 18, 21, 37-40, 42, 43, 45, 47, 49, 51, 58, 59, 61, 63 and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,846,095 to Emalander.

Emalander discloses an apparatus and method with the limitations of the above claims when using the embodiments as shown in figures 5, 6 and 8 wherein the at least one first element adapted to change its physical form is the volume change of the fluid, the at least one second element is 50, the item type, e.g. beverage, etc., and the freezing is as discussed in column 1,

lines 12-22, the at least one second element is 50 as described in column 5, lines 40-61, and the container and package is as shown in figures 5 and 6.

7. Claims 1, 2, 4, 5, 8, 10, 15-19, 21, 37-40, 43-45, 47, 49, 52-55, 57-61, 63-71, 73 and 74 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,181,394 to Schea, III et al. (and U.S. 4,191,125 to Johnson disclosed and incorporated therein).

Schea, III et al. discloses an apparatus and method with the limitations of the above claims when using the embodiments as shown in the figures and wherein the apparatus and the at least one breakable component of the method claims is device 16 disclosed within the specification in column 5, lines 38-46 and further identified in column 6, lines 22-34 as U.S. 4,191,125 to Johnson.

The at least one first element being the volume change of the fluid of Johnson, the at least one second element is glass 3 with pad 6 and dye 7 of Johnson which therefore includes the at least one second element including at least one colored element, the item type, e.g. vaccine, being part of the biologically active proteins disclosed in the abstract of Schea, III and the freezing is as discussed in column 6, lines 11-21 of Schea, III and in columns 3-4 of Johnson, the container with packaging and items 11 therein are as described by Schea III, the at least one breakable element being enclosed in at least partially transparent housing 4 of Johnson, and in this case "a consumable item" is defined as that that can be depleted or worn out by use.

8. Claims 1, 2, 6-8, 10, 21, 22, 37-41, 46, 47, 49 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 3,440,997 to Rogen et al.

Rogen et al. discloses an apparatus and method with the limitations of the above claims when using the embodiments as shown in figures 5, 6 and 8 wherein the at least one first element adapted to change its physical form is the volume change of the fluid, the at least one second element is 50, the item type, e.g. beverage, etc., and the freezing is as discussed in column 1, lines 12-22, the at least one second element is 50 as described in column 5, lines 40-61, the container and package is as shown in figures 5 and 6, and when the arming and disarming device is 16.

9. Claims 1, 2, 8, 10, 12, 15-17, 19, 21, 22, 37, 47, 49 and 58-64 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,404,923 to Smith.

Smith discloses an apparatus and method with the limitations of the above claims when the at least one item is the house being monitored, the at least one second element is the bimetallic element 4, the at least one first element is the container 10.

Furthermore, Smith discloses that the apparatus is small, can be mounted in different locations and can use different bimetallic elements dependent on the location of mounting (column 2, lines 61+). Smith discloses the apparatus in an armed state and discloses an unarmed state wherein the container and bimetallic element are separated so that should excessive heat be encountered during shipment the bimetallic element will not cause breakage of the container (column 2, lines 53-60).

10. Claims 1-3, 6, 8-11, 15, 16, 18, 21, 37-43, 46-50, 58, 59, 61, 62 and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,735,607 to Shahinpoor et al.

Shahinpoor et al. discloses an apparatus and method with the limitations of the above claims when using the embodiments as shown in figures 7a-8b wherein the at least one first element adapted to change its physical form is SMA 710 and 810, the at least one second element is membrane 720 and 820, the item type and thawing are discussed in column 1, lines 14-27.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

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made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schea, III et al.

Schea, III et al. teaches all that is claimed as discussed in the above rejections of claims 1, 2, 4, 5, 8, 10, 15-19, 21, 37-40, 43-45, 47, 49, 52-55, 57-61, 63-71, 73 and 74 except for the limitations of the items being different.

With respect to the items being different: It is very well known that different items that can be ruined by exposure to improper temperatures can be stored or shipped together in an environment that meets the basic needs of said items, e.g. a refrigerator or a refrigeration truck. Therefore, it would not have involved an inventive step to modify the at least two items, taught by Schea, III et al., to include at least two different items in order to reduce shipping or storage costs when the temperature requirements for both items are similar.

13. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of U.S. 6,085,908 to Lento.

Smith teaches all that is claimed as discussed in the above rejections of claims 1, 2, 8, 10, 12, 15-17, 19, 21, 22, 37, 47, 49 and 58-64 except for the limitations in claims 18 and 20.

Lento discloses that containers including perfume type containers can include coloration in order to add to their decorative appearance (column 2, lines 9-18). Therefore, it would have

been obvious to one of ordinary skill in the art at the time of the invention to modify the at least one second element and the glass fuse, taught by Smith, to include at least one colored glass fuse, as suggested by Lento, in order to enhance its appearance when mounted within the house.

14. Claims 12-14 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahinpoor et al. in view of U.S. 4,818,119 to Busch et al.

Shahinpoor et al. teaches all that is claimed as discussed in the above rejections of claims 1-3, 6, 8-11, 15, 16, 18, 21, 37-43, 46-50, 58, 59, 61, 62 and 64 except for the first element and disk being bimetallic.

Busch et al. discloses that shape memory elements and bimetallic elements can be used in the alternative (column 4, lines 5-21) as an activation means in a temperature detecting apparatus. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the at least one first shape memory effect element and disk, taught by Shahinpoor et al., to be bimetallic, as suggested by Busch et al., since they are alternatives and since this would give the manufacturer an extra option in producing the parts cheaply or in changing the temperature reaction parameters as needed.

15. Claims 12-14 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahinpoor et al. in view of U.S. 6,561,121 to Rose.

Shahinpoor et al. teaches all that is claimed as discussed in the above rejections of claims 1-3, 6, 8-11, 15, 16, 18, 21, 37-43, 46-50, 58, 59, 61, 62 and 64 except for the first element and disk being bimetallic.

Rose discloses that shape memory elements and bimetallic elements can be used in the alternative (column 14, lines 43-51) as an activation means in a temperature detecting apparatus. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the at least one first shape memory effect element and disk, taught by Shahinpoor et al., to be bimetallic, as suggested by Rose, since they are alternatives and since this would give the manufacturer an extra option in producing the parts cheaply or in changing the temperature reaction parameters as needed.

Allowable Subject Matter

16. Claims 23-36 would be allowable if rewritten to overcome the claim objections set forth in this Office Action.

17. Claim 71 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and the claim objections set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

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18. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

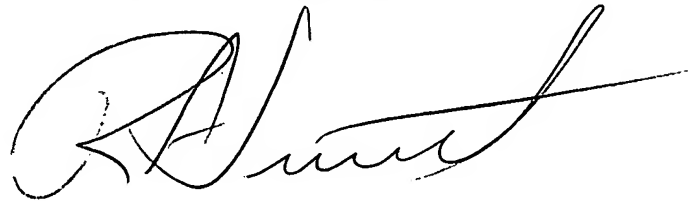
19. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatus, indicators and methods.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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A handwritten signature in black ink, appearing to read 'R. Alexander Smith', with a long horizontal flourish extending to the right.

R. Alexander Smith
Patent Examiner
Technology Center 2800

RAS
March 7, 2005